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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,920	06/29/2006	Ties Van Bommel	DE040020	2337

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
SCHLIENTZ, LEAH H	

ART UNIT	PAPER NUMBER
1618	

MAIL DATE	DELIVERY MODE
05/04/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No.	Applicant(s)	
	10/596,920	VAN BOMMEL ET AL.	
	Examiner	Art Unit	
	Leah Schlientz	1618	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 26 April 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☒ Applicant's reply has overcome the following rejection(s): 102 rejection of claim 6 overcome by claim cancellation.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *15-33*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See continuation sheet.

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/Michael G. Hartley/
Supervisory Patent Examiner, Art Unit 1618

Continuation of 11.

Applicant requests a new non-final office action on page 5 of the Response because Applicant' asserts that claims 15-33 were rejected for the first time over copeinding US patent application 11/719,310 as a new grounds for rejection. This is not found to be persuasive. As set forth in the previous Office Action, reference to 11/917,310 in the non-final office action 8/5/2009 was an obvious typographical error, based on the fact that Applicant would be aware of their own copending applications, and the examiner provided a detailed description of the content of the claims of the copending application in the provisional rejection in comparison with the instant claims. The finality of the office action mailed 2/24/2010 and the provisional double patenting rejection are maintained.

Claims 15-29, 32 and 33 are rejected under 35 USC 103(a) as being unpatentable over Hainfeld (6,818,199) in view of West (US 2002/0103517). Applicant argues on pages 7-11 that Hainfeld and West do not teach the claimed features, specifically the reception of such ultrasound wave reflections from such nano-particles. Applicant asserts that Hainfeld explicitly discusses forms of electromagnetic radiation and that one can only conclude that Hainfeld is referring to low frequency electromagnetic waves. Applcant asserts that there is no disclosure of the acoustic properties of the disclosed nanoparticles inimaging, and Hainfeld does not enable receiving ultrasound sound wave reflections from solid metal nanoparticles having the claimed acoustic impedence. Applicant asserts West does not disclsoe imaging is performed from ultrasound reflections from the nanoshells. In conclusion, Applicant submits that neither Hainfeld nor West pertains to ultrasound imaging.

This is not found to be persuasive. It is clear from Hainfeld that the metal nanoparticles may be used for diagnostic imaging, including via ultrasound, and that one skilled in the art will be familiar with the use of sources other than x-rays to produce detection or imaging of metal particles (column 19). West also teaches localized heat delivery and localized imaging, including ultrasound. Ultrasound imaging necessarily requires the claimed "applying an ultrasonic wave" and "receiving an ultrasound wave reflection" steps upon administration of the particles to a human or animal subject. With regard to the claimed physical property (acoustic impedance) associated with metal nanoparticles, the examiner asserts that acoustic impedence is a measurable physical property of a given material. Applicant's specification, discloses that acoustic impedance (Z) is defined as the product of density (p) and speed of sound (c) in a medium (paragraph 0028), and that examples of metals with an acoustical impedance which is appropriate in the context of the present invention are gold, silver, platinum, palladium, tungsten or tantalum, rhenium, or a mixture thereof (paragraph 0029). The gold nanoparticles in the compositions of Hainfeld inherently have the requisite density, since they are nanoparticles of the same materials as those which are claimed. Absent evidence to the contrary, the particles would also have the same acoustic impedence. "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Claims 15-23, 25-28, 32 and 33 are rejected under 35 USC 103(a) as being unpatentable over Bekeredjian (Ultrasound in Med. and Biol, 2002, 28(5), p. 691-695). Applicant argues on pages 11-12 of the Response that administering colloidal gold-bound microtubules is not administering solid metal nanoparticles having an acoustic impedence above 35.105 g/cm2s, and that nothing in Bekeredjian suggests solid metal nanoparticles having the claimed acoustic impedence.

This is not found to be persuasive. Applicant's specification specification, discloses that acoustic impedance (Z) is defined as the product of density (p) and speed of sound (c) in a medium (paragraph 0028), and that examples of metals with an acoustical impedance which is appropriate in the context of the present invention are gold, silver, platinum, palladium, tungsten or tantalum, rhenium, or a mixture thereof (paragraph 0029). 10 nm gold nanoparticles in the compositions of Bekeredjian inherently have the requisite density, therefore absent evidence to the contrary, the particles would also have the claimed acoustic impedence.

Claims 15-33 are rejected under 35 USC 103(a) as being unpatentable over Hainfeld (6,818,199) in view of West (US 2002/0103517), in further view of Hainfeld (US 2005/0020869). Applicant argues on pages 12-14 of the Resposne that Hainfeld II does not teach solid rhenium particles in ultrasonic imaging, only teaches therapeutic application to enhance energy delivery to target tissue.

This is not found to be persuasive, since the rhenium particles of Hainfeld II are disclosed along with gold and other metals of Hainfeld I as capable of interaction with ultrasound, one of ordinary skill would have been capable of performing imaging using rhenium as equivalent to gold or other metal disclosed by Hainfeld I for diagstic imaging, including ultrasound.